

INTERNATIONAL ACCREDITATION SERVICE, INC.

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July 18, 2008

**TO: IAS-ACCREDITED TESTING LABORATORIES, CALIBRATION LABORATORIES,
INSPECTION AGENCIES AND OTHER INTERESTED PARTIES**

**SUBJECT: Proposed Revisions to the Accreditation Criteria for IBC® Special Inspection
Agencies, Subject AC291-0908-0908-R1 (DN/SM)**

Hearing Information:

Thursday, September 18, 2008

8:00 a.m.

Minneapolis Convention Center

1301 Second Avenue South

Minneapolis, MN 55403

Dear Madam or Sir:

The IAS Acceptance Criteria for IBC® Special Inspection Agencies (AC291) has been placed on the committee agenda for the above-noted meeting. Proposed changes to the criteria focus on expansion of the scope to include special inspection of firestop systems (see Section 6.11). Staff believes that the technical complexity and public-safety implications of these systems is consistent with the “special case” provisions of IBC Section 1704.13. In the proposed revisions, firestop systems are broadly defined to include installed firestops, fire-resistive joint systems, and perimeter fire barriers.

The revisions to AC291 were initiated by the Firestop Contractors International Association (FCIA). Specific recommendations submitted by FCIA were reviewed and refined by staff, and include two ASTM standards (Appendix A) which are specific to inspection of firestop systems.

Staff recommends two additional revisions:

1. In Section 6.11, recognition of inspector qualifications which are issued by any training or certification agency which is accredited to ISO/IEC 17024 or IAS AC371. The intent of this change is to encourage work-force qualification programs to consider accreditation to internationally recognized quality standards.
2. Editorial revision to footnote 1 of Appendix A, to correct ICC’s home-office address.

You are cordially invited to submit written comments, or to attend the committee hearing and present verbal comments. Written comments will be forwarded to the committee, **prior to the hearing**, if received by **August 28, 2008**. As stated in Section 4.0 of the Rules of Procedure

for Accreditation Committee Meetings (Rules) (copy enclosed), all written communications and submissions shall be delivered at least ten days before the scheduled Accreditation Committee meeting if they are to be forwarded to the committee.

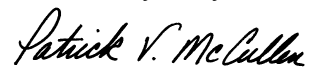
Any written material submitted for committee consideration will be available for public distribution as set forth in Section 4.0 of the Rules.

Visual aids (including, but not limited to, charts, overhead transparencies, slides, videos, or presentation software) for viewing at meetings will be permitted only if the presenter provides to IAS, before the presentation, a copy of the visual aid(s) in a medium that can be retained by IAS with its record of the meeting, and that can also be provided to interested parties.

Your cooperation is requested in forwarding to the Whittier office all material directed to the committee. Parties interested in the deliberations of the committee should refrain from communicating, whether in writing or verbally, with committee members regarding agenda items. The committee reserves the right to refuse communications that do not comply with this request.

If you have any questions, please contact Sandi McCracken, senior accreditation officer, at 562-699-0541, extension 3459, or the undersigned at extension 3309. You may also reach us by e-mail at info@iasonline.org.

Yours very truly,



Patrick V. McCullen
Vice President

PVM/cjm

Enclosures

cc: Accreditation Committee

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RULES OF PROCEDURE FOR ACCREDITATION COMMITTEE MEETINGS

1.0 PURPOSE

The purpose of the Accreditation Committee and its meetings is to monitor the work of and to develop accreditation criteria for International Accreditation Service, Inc. (IAS).

2.0 MEETINGS

2.1 The Accreditation Committee shall schedule meetings that are open to the public in discharging its duties under Section 1, subject to Section 5.

2.2 All scheduled meetings shall be publicly announced.

2.3 Two-thirds ($\frac{2}{3}$) of the voting Accreditation Committee members shall constitute a quorum. A majority vote of members present is required on any action.

2.4 In the absence of the nonvoting Chair-Moderator, Accreditation Committee members present shall elect an alternate Chairman from the committee for that meeting. The alternate Chairman shall be counted as a voting committee member for purposes of maintaining a committee quorum and to cast a tie-breaking vote of the committee.

2.5 Minutes of the meetings shall be kept.

3.0 MEETING RECORDS

An electronic audio record of meetings shall be made by IAS; no other audio, video, electronic or stenographic recordings of the meetings will be permitted. Visual aids (including, but not limited to, charts, overhead transparencies, slides, videos, or presentation software) viewed at meetings shall be permitted only if the presenter provides IAS before presentation with a copy of the visual aid in a medium which can be retained by IAS with its record of the meeting and which can also be provided to interested parties requesting a copy. A copy of the IAS recording of the meeting and such visual aids, if any, will be available to interested parties upon written request made to IAS together with a payment as required by IAS to cover costs of preparation and duplication of the copy. These materials will be available beginning five days after the conclusion of the meeting but will no longer be available after 30 days have elapsed from the conclusion of the meeting.

4.0 WRITTEN COMMUNICATIONS AND SUBMISSIONS

Parties interested in the deliberations of the committee should refrain from communicating, whether in writing or verbally, with committee members regarding agenda

items. All written communications and submissions regarding agenda items should be delivered to IAS. All such written communications and submissions shall be considered nonconfidential and available for discussion in open session of an Accreditation Committee meeting, and shall be delivered *at least ten days* before the scheduled Accreditation Committee meeting if they are to be forwarded to the Committee. Correspondence received by IAS will not be released to any party, except to the Accreditation Committee, prior to the meeting without permission of the author. The committee reserves the right to refuse recognition of communications which do not comply with the provisions of this section. All such communications and submissions will be available from IAS upon written request and payment of costs associated with duplication. The materials will be available beginning five days after the conclusion of the meeting but will no longer be available after 30 days have elapsed from the conclusion of the meeting.

5.0 CLOSED SESSIONS

Meetings shall be open except that the chairman may call for a closed session to seek advice of counsel.

6.0 ACCREDITATION CRITERIA

Accreditation criteria are established by the committee to provide a basis for International Accreditation Service, Inc., accreditations. Consideration of accreditation criteria must be in conjunction with a current and valid application for an IAS accreditation listing or as otherwise determined by the Accreditation Committee.

6.1 Procedure

6.1.1 New Criteria

6.1.1.1 Proposed accreditation criteria may be submitted by interested parties to IAS, and shall be developed by the IAS staff and discussed in open session with the Accreditation Committee during a scheduled meeting.

6.1.1.2 Proposed accreditation criteria shall be available to interested parties at least 45 days before discussion at the committee meeting.

6.1.1.3 The committee shall be informed of all pertinent written communications received by IAS.

6.1.1.4 Attendees at Accreditation Committee meetings shall have the opportunity to speak on accreditation criteria listed on the meeting agenda, to provide information to committee members.

6.1.2 Existing Criteria

6.1.2.1 Changes to existing accreditation criteria may be submitted by interested parties to IAS, and shall be developed by the IAS staff. Existing accreditation criteria may be revised by the committee either (i) at a public meeting pursuant to the procedures set forth herein, or (ii) by postal ballot, provided public notice is provided as stipulated in Section 6.1.1.2.

6.1.2.2 The committee shall be informed of all pertinent written communications received by IAS. Parties interested in the proposed revisions to accreditation criteria may deliver communications and submissions regarding such proposed revisions to IAS within 35 days of the posting of the public notice regarding such proposed revisions to accreditation criteria. Such communications and submissions will otherwise be subject to the provisions of Section 4.0.

6.1.2.3 Upon an amendment to existing accreditation criteria, the effective date of the criteria shall be no earlier than 30 days after publication of the approved criteria.

6.2 Approval

Approval of accreditation criteria shall be as specified in Section 2.3 of these rules.

Approved by the Board of Directors

October 4, 2007

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PROPOSED REVISIONS TO THE ACCREDITATION CRITERIA FOR IBC® SPECIAL INSPECTION AGENCIES

AC291

Proposed September 2008

**(Previously issued in January 2005 as Requirements; May 2005, August 2006, May 2007
and April 2008)**

PREFACE

The attached accreditation criteria has been proposed to provide all interested parties with an opportunity to comment. If the proposed criteria is an updated version from a previous edition, underlined text within the criteria indicate a technical change or addition from the previous edition; and text marked with the ~~strikeout~~ indicates where a paragraph or item has been deleted if the deletion resulted from a technical change. This criteria may be further revised as the need dictates.

IAS may consider alternate criteria provided the proponent submits substantiating data demonstrating that the alternate criteria are at least equivalent to the attached criteria and otherwise meet applicable accreditation requirements.

PROPOSED REVISIONS TO THE ACCREDITATION CRITERIA FOR IBC® SPECIAL INSPECTION AGENCIES

1.0 INTRODUCTION

1.1 Scope: This document sets forth the requirements for obtaining and maintaining International Accreditation Service, Inc. (IAS), special inspection agency ("agency") accreditation and for the qualifying data that must be submitted relating to the scope of inspection for which accreditation is sought. This document supplements the IAS Rules of Procedure for IBC® Special Inspection Agency Accreditation. Section 1704 of the *International Building Code*® (IBC) provides for special inspection agencies. Under the IBC, final authority for recognition of special inspection agencies rests with the building official having jurisdiction, and nothing contained herein affects or diminishes that authority in any way.

1.2 Reference Documents

1.2.1 2003 or 2006 *International Building Code*® (IBC)¹.

1.2.2 ISO/IEC (International Organization for Standardization/International Electrotechnical Commission) Standard 17020:1998, General Criteria for the Operation of Various Types of Bodies Performing Inspection².

1.2.3 IAS Rules of Procedure for IBC® Special Inspection Agency Accreditation³.

1.2.4 ISO/IEC (International Organization for Standardization/International Electrotechnical Commission) Standard 17024:2003, Conformity Assessment - General Requirements for Bodies operating Certification of persons.

1.2.5 IAS AC371 Accreditation Criteria for Training Agencies for Work Force Qualification Programs.

2.0 DEFINITIONS

2.1 Accredited Calibration Provider: A calibration laboratory that is accredited by IAS [or an Accreditation Body with which IAS has a Mutual Recognition Arrangement (MRA) relationship] as operating under ISO/IEC Standard 17025.

2.2 Approved: Acceptable to the building official.

2.3 Approved Agency: An established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when such agency has been approved.

2.4 Certificate of Compliance: A certificate stating that materials and products meet specified standards or that work was done in compliance with approved construction documents.

2.5 Label: An identification applied on a product by the manufacturer that contains the name of the manufacturer, the function and performance characteristics of the product or material, and the name and identification of an approved agency; and that indicates that a representative sample of the product or material has been tested and evaluated by an approved agency.

2.6 Manufacturer's Designation/Mark: An identification applied on a product by the manufacturer indicating that a product or material complies with a specified standard or set of rules.

2.7 Professional Engineer (P.E.): An engineer licensed to practice the applicable discipline in the state where the agency is operating.

2.8 Special Inspection: Inspection as herein required of the materials, installation, fabrication, erection or placement of components and connections requiring special expertise to ensure compliance with approved construction documents and referenced standards.

2.9 Special Inspection Agency (SIA): A third-party entity approved by the building official to perform special inspections.

2.10 Special Inspection, Continuous: The full-time observation of work requiring special inspection by a qualified inspector employed by an approved agency who inspects the work being performed.

2.11 Special Inspection, Periodic: The part-time or intermittent observation of work requiring special inspection by a qualified inspector employed by an approved agency that inspects the work in progress and at the completion of the work.

2.12 Special Inspector: A person employed by an agency, and approved by the building official, to perform certain types of inspection as detailed in the IBC.

2.13 Sprayed Fire-resistant Materials: Cementitious or fibrous materials that are spray-applied to provide fire-resistant protection of the substrates.

2.14 Structural Observation: The visual observation of the structural system by a registered design professional for general conformance to the approved construction documents at significant construction stages and at completion of the structural system. Structural observation does not waive inspections required by Section 109 or Section 1704 of the IBC.

3.0 BASIC INFORMATION

The following basic information must be submitted by agencies applying for Special Inspection Agency accreditation:

Note: An electronic format is acceptable.

3.1 Data showing compliance with Section 3.0 of the IAS Rules of Procedure for IBC® Special Inspection Agency Accreditation.

3.2 A manual showing compliance with the relevant requirements of ISO/IEC Standard 17020:1998, General Criteria for the Operation of Various Types of Bodies Performing Inspection. The relevant requirements are as follows:

3.2.1 A copy of the current business license issued by the jurisdiction where inspections are conducted.

3.2.2 Agency's field and type of inspection, including detailed procedure for each field of inspection. IAS offers accreditation in the following fields of special inspection:

- Concrete Construction (Prestressed and Reinforced)
- Nondestructive Testing (NDT)
- Pier Foundations
- Pile Foundations
- Post-installed Structural Anchors in Concrete
- Soils
- Sprayed Fire-resistant Materials
- Steel (High-strength Bolting and Welding)
- Masonry Construction
- Structural Wood Construction
- Exterior Insulation and Finishing (EIFS)
- Firestop Systems
- Special Cases

3.2.3 Evidence of liability insurance per state or local requirements.

3.2.4 Detailed information on impartiality, independence and integrity, including documented procedures on how the agency ensures freedom of employees from external pressures that could impact inspection activities. (Compensation of inspectors must not directly depend on the number of inspections they perform and in no case on the results of such inspections.)

3.2.5 An affidavit signed by an officer of the agency attesting to compliance with the third-party requirements described in the following note.

Note: The applicant agency and its inspection staff shall not be part of or have a financial or other interest in the construction, manufacture, representation, supply, installation or maintenance of the structures or components (including any fixtures or appliances) which they inspect, or in entities that supply similar competitive items or services. The agency and its staff shall not engage in any activities that may conflict with their independence of judgment and integrity. The agency must operate in a nondiscriminatory, transparent manner so as to allow full access to its services by interested parties.

3.2.6 Policies and procedures on how the agency ensures confidentiality of client information.

Note: Implementation of Sections 3.2.4 and 3.2.6 must provide objective evidence that the inspector has read and understood these requirements. Appropriate objective evidence may be in a form, referencing the requirement, or any other method appropriate to ensure personnel understand and attest they are in compliance with the requirements.

3.2.7 An organizational chart and documents defining positions and responsibilities of key personnel, including the following:

3.2.7.1 A technical manager (however named) with the necessary qualifications and experience, who has overall responsibility for the technical operations.

3.2.7.2 A quality manager (however named) with the necessary qualifications and experience who has the responsibility for the quality system and its implementation. This person should have direct access to the highest level of authority within the organization.

Note: Necessary qualifications and experience must be sufficient to effectively perform their responsibilities.

3.2.7.3 Field supervisor(s) who is (are) responsible for the quality of inspections, and the training and monitoring inspectors for each field of inspection. If the field inspection supervisor covers more than one field of inspection, he/she shall be suitably qualified in each field.

3.2.7.4 Deputies in the absence of technical manager, quality manager and/or field supervisor(s).

3.2.7.5 A matrix matching inspector certifications against the fields of inspections shall be maintained and current. [Minimum educational, experience and/or certification requirements for special inspectors are noted in Section 6.0. This matrix also must include the date of employment and date of certification. It must be understood that local and state laws may preempt IAS requirements as far as inspector certifications and registrations are concerned.]

Note: Refer to Section 5.2.3.

3.2.8 Documented safety procedures addressing the field inspections.

3.2.9 Documented policies and procedures on equipment maintenance, including the following:

3.2.9.1 Equipment used for performing special inspection in the field.

3.2.9.2 Equipment used for performing testing under special inspection in the field.

3.2.9.3 Calibration of test/inspection equipment with traceability to an accredited calibration provider, including identifying the calibration status of the equipment by a label or other suitable means.

3.2.9.4 Handling defective equipment.

3.2.10 Policies and procedures on security and backup of stored data (hard and electronic).

3.2.11 All documents issued to personnel in the inspection agency as part of the quality system shall be reviewed and approved for use by authorized personnel prior to issue. A master list or an equivalent document control procedure identifying the current revision status and distribution of documents in the quality system shall be established and be readily available to preclude the use of invalid and/or obsolete documents.

3.2.11.1 Management system documents generated by the inspection agency shall be uniquely identified. Such identification shall include the date of issue and/or revision identification, page numbering, the total number of pages or a mark to signify the end of the document, and the issuing authority.

3.2.11.2 Procedures shall be established to describe how changes in documents maintained in computerized systems are made and controlled.

Note 1: Controlled documents include but are not limited to the quality manual, standard operating procedures, special inspection procedures, and copies of forms, checklists, etc., relevant to the inspection activities.

Note 2: Invalid or obsolete documents must be promptly removed from all points of issue or use. Obsolete documents retained for either legal or knowledge-preservation purposes must be suitably marked.

3.2.12 Policies and procedures for contract review to show that the agency only conducts work within its area of expertise and that the agency has adequate resources to fully discharge its responsibilities in a competent manner.

3.2.13 Documented procedure for preparation, acquisition, handling and storage of material samples or field-prepared specimens in accordance with the requirements stipulated in applicable standards or codes.

Note: In the absence of such information, the agency must have procedures for documenting sampling, handling, storage and transportation techniques.

3.2.14 Documented policies and procedures on how the agency shall retain records of all activities. Agency shall maintain all records pertaining to the contract review.

Note: Such records, including inspection and test reports, shall be held in a secure environment for such period as stipulated in the contract documents or prevailing local laws, which ever is longer.

3.2.15 Policies and procedures for subcontracting to other IAS-accredited agencies.

Note: Subcontracting is permitted only to IAS-accredited agencies or to qualified individuals. The accredited agency must have documentation substantiating that the subcontractor agrees to operate under the agency's quality management system. A list of current subcontractors must be maintained.

3.2.16 Documented procedures for client feedback and for processing complaints and appeals from clients and regulatory agencies.

Note: Records of all complaints and resolutions shall be maintained.

3.2.17 Policies and procedures for internal audits.

Note: For agencies with fewer than five employees, internal audits may be performed by an independent individual qualified in conformity assessment.

3.2.18 Policies and procedures for management review. The management review shall take account of:

3.2.18.1 Internal audit reports.

3.2.18.2 External audit report.

3.2.18.3 Priority objectives.

3.2.18.4 Plan for improvement.

3.2.18.5 Results of feedback.

3.2.18.6 Training needs.

3.2.18.7 Results of monitoring inspectors in the field.

3.2.19 Procedure to notify building official and registered design professional if corrective actions arising from inspection activities remain unresolved. This must be

consistent with requirements noted in Section 1704.1.2 of the 2006 IBC.

3.2.20 Procedure for dispatching and distribution of daily, intermediate and final reports.

4.0 INSPECTION REPORTS

Inspection reports issued by the agency shall accurately and clearly outline the results of special inspections. Inspection reports shall comply with Section 1704.1.2 of the IBC and contain the following information, as applicable:

4.1 Inspection date, and arrival and departure times of the inspector.

4.2 Information pertaining to review of material records. (Material certification requirements are included, but not limited, to those noted in Appendix A.)

4.3 Structure/item inspected, including applicable codes, standards, approved construction documents, etc.

4.4 Results of inspection/tests witnessed or performed.

4.5 Information pertaining to review of labeling and the agency's label control system.

4.6 Resolution of any discrepancies noted during previous inspections.

Note: Separate documentation is acceptable.

4.7 Description of samples obtained, if any, including quantity, dimensions and relevant physical characteristics.

4.8 Identification of test/inspection equipment used in the inspection.

4.9 Names and signatures of the inspector and client's representative (as applicable).

5.0 TRAINING AND SUPERVISION/MONITORING OF INSPECTORS

IBC special inspection agencies shall have procedures for the training and supervision/monitoring of inspectors. Detailed records of training and supervision/monitoring activities shall be maintained and be made available for review by IAS during on-site assessments, reassessments and surveillance visits.

5.1 Inspector Training

All inspectors of the agency shall undergo training in specific competencies by a supervisor or senior inspector or shall obtain training/education through other formal arrangements that are applicable to the inspector's duties. Plans for continued training to keep pace with developing technology and code changes shall be in place.

All such training shall be documented by the agency.

5.2 Supervision/Monitoring of Inspectors

5.2.1 To ensure consistency in inspections and compliance with accreditation requirements, IBC special inspection agencies shall have an effective supervision/monitoring system for their inspectors. This also will include regular review of inspection reports by supervisory personnel.

5.2.2 The inspection agency management shall conduct a review of each inspector at a minimum

frequency of once every six months. The six-month review shall include:

- Review of the inspection reports for adequacy and completeness
- Competence of the inspector with the agency's internal standard operating procedures
- Compliance with requirements imposed by the jurisdiction in which inspections are conducted.
- Review of feedback from the clients and building department staff

5.2.3 Inspection agency shall have records of monitoring their inspectors at least once during the first month of employment. Thereafter, inspectors shall be monitored periodically in the field but not less than once every three years for each field of inspection by the agency.

6.0 MINIMUM QUALIFICATIONS FOR SPECIAL INSPECTORS

6.1 Concrete Construction (Pre-stressed/Pre-cast/Cast-in-Place/Poured-in-Place and Reinforced)

6.1.1 Pre-stressed/Pre-cast/Cast-in-Place/Poured-in-Place Concrete

6.1.1.1 Current ICC certification in prestressed concrete inspection and one year of experience; or

6.1.1.2 P.E. and a minimum one year of direct experience in prestressed concrete construction. Inspector must be qualified under Section 6.1.1.1 within 12 months of accreditation; or

6.1.1.3 Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum one year of experience. Inspector must be qualified under Section 6.1.1.1 within 12 months of accreditation; or

6.1.1.4 ACI Concrete Construction Special Inspector and a minimum two years of experience. Inspector must be qualified under Section 6.1.1.1 within 12 months of accreditation.

6.1.2 Reinforced Concrete

6.1.2.1 Current certification in reinforced concrete special inspection by ICC (see note below) and one year of experience; or

6.1.2.2 P.E. and a minimum one year of direct experience in reinforced concrete construction. Inspector must be qualified under Section 6.1.2.1 within 12 months of accreditation; or

6.1.2.3 Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum two years of experience. Inspector must be qualified under Section 6.1.2.1 within 12 months of accreditation; or

6.1.2.4 ACI Concrete Construction Special Inspector and a minimum one year of experience. Inspector must be qualified under Section 6.1.2.1 within 12 months of accreditation.

Note: Passing the ICC exam on reinforced concrete special inspection or having the reinforced concrete associate certification will not be considered without meeting the education/work experience requirements by ACI & ICC.

6.2 Nondestructive Testing (NDT)

6.2.1 Personnel qualified in accordance with nationally-recognized NDT personnel qualifications practice or standard, such as ANSI/ASNT-CP-189 or SNT-TC-1A; or

6.2.2 American Society for Nondestructive Testing (ASNT) Level II and a minimum one year of direct testing experience as determined and approved by an in-house ASNT Level III.

6.3 Pier and Pile Foundations

6.3.1 Current ICC certification in Concrete Special Inspection in addition to one of the following:

6.3.2 P.E. and a minimum of one year of experience.

6.3.3 NICET III or IV (geotechnical/construction or construction material testing/soils) and a minimum of five years of experience.

6.3.4 NICET CT Certified Engineering Technologist and a minimum of five years of experience.

6.4 Post-installed Structural Anchors in Concrete

6.4.1 Current ICC Certification in Reinforced Concrete Special Inspection.

6.4.2 Current ICC certification as a Residential or Commercial Building Inspector, as applicable, and a minimum two years of experience related to the activity being inspected; or

6.4.3 P.E. and a minimum one year of experience related to the activity being inspected. Inspector must be qualified under Section 6.4.1 within 12 months of accreditation; or

6.4.4 Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum two years of experience related to the activity being inspected. Inspector must be qualified under Section 6.4.1 within 12 months of accreditation.

6.5 Soils

6.5.1 NICET III or IV and a minimum two years of experience; or

6.5.2 Technician with a minimum three years of documented experience directly related to soils testing and inspection under a licensed P.E. Inspector must be qualified under Section 6.5.1 within 12 months of accreditation; or

6.5.3 Bachelors degree in Civil or Structural Engineering/Geotech/Geologist from an accredited institution and a minimum one year of experience. Inspector must be qualified under Section 6.5.1 within 12 months of accreditation; or

6.5.4 P.E. in civil engineering or equivalent P.E. and a minimum one year of experience. Inspector must be qualified under Section 6.5.1 within 12 months of accreditation; or

6.5.5 P.E. in Geotechnical engineering.

6.6 Spray-applied Fire-resistant Materials

6.6.1 Current ICC certification as a Spray-applied Fireproofing Special Inspector and a minimum of one year experience; or

6.6.2 P.E. and a minimum one year of experience in fireproofing applications. Inspector must be qualified under Section 6.6.1 within 12 months of accreditation; or

6.6.3 Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum two years of experience in fireproofing applications. Inspector must be qualified under Section 6.6.1 within 12 months of accreditation.

6.7 Steel (High-strength Bolting and Welding)

6.7.1 Bolting: Current ICC certification as a Structural Steel and Bolting Special Inspector and a minimum one year of experience.

Note: Current certifications for Structural Steel and Welding Special Inspector are valid until the date of expiration.

6.7.2 Welding

6.7.2.1 AWS Certified Welding Inspector (CWI), and

6.7.2.2 Current ICC certification as a Structural Steel and Welding Special Inspector and a minimum one year of experience.

6.8 Masonry Construction

6.8.1 Current ICC certification in masonry and a minimum one year of experience; or

6.8.2 P.E. and a minimum one year of relevant experience. Inspector must be qualified under Section 6.8.1 within 12 months of accreditation; or

6.8.3 Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum two years experience. Inspector must be qualified under Section 6.8.1 within 12 months of accreditation.

6.9 Structural Wood Construction

Current ICC certification as a commercial or residential building inspector, as applicable, and

6.9.1 A minimum two years of direct experience in engineered wood products; or

6.9.2 A minimum five years of direct experience as a journeyman carpenter.

6.10 Exterior Insulation and Finish Systems (EIFS)

6.10.1 Current ICC certification as a reinforced concrete special inspector; or

6.10.2 Current ICC certification as a residential or commercial building inspector, and a minimum of two

years of experience related to the activity being inspected; or

6.10.3 Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum two years of experience related to the activity being inspected. Inspector must be qualified under Section 6.10.1 within 12 months of accreditation; or

6.10.4 NICET CT Certified Engineering Technologist and a minimum five years of experience. Inspector must be qualified under Section 6.10.1 within 12 months of accreditation.

6.11 Firestop Systems

6.11.1 Successful completion of the UL Qualified Firestop Contractor Designated Responsible Individual (DRI) Examination and a minimum of one year of experience in the on-site inspection of installed firestops, fire-resistive joint systems, and perimeter fire barriers; or

6.11.2 Successful completion of the FM Approvals 4991 Designated Responsible Individual (DRI) for Firestop Contractor Examination and a minimum of one year of experience in the on-site inspection of installed firestops, fire-resistive joint systems, and perimeter fire barriers; or

6.11.3 P.E., R.A., or F.P.E. and a minimum of one year of experience in the on-site inspection of installed firestops, fire-resistive joint systems, and perimeter fire barriers; or

6.11.4 Qualification as a Firestop Systems Inspector through training or certification by an agency which is accredited under ISO/IEC 17024 or AC371.

6.11.12 Special Cases

6.11.12.1 Current ICC certification as a Special Inspector and a minimum two years of experience related to the activity being inspected; or

6.11.12.2 Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum two years of experience related to the activity being inspected. Inspector must be qualified under Section 6.11.1 within 12 months of accreditation; or

6.11.12.3 P.E. and a minimum one year of experience related to the activity being inspected. Inspector must be qualified under Section 6.11.1 within 12 months of accreditation.

Exception: Individuals who have proven expertise in a specialty field, either through education or field experiences of not less than five years, may be considered as meeting criteria to conduct one or more classes of specialty inspections. ■

APPENDIX A — Material Certifications

ELEMENT	MATERIAL	PRESENT PRACTICE	ADDITIONAL REQUIREMENTS
Concrete	Mix	Structural engineer approves mix design based upon submittals, verifies approved mix design supplied based upon batch ticket, sample and test cylinders	Batch plant inspection
	Cement		Manufacturer certification
	Coarse Aggregate		ASTM Standards C 33 and C 330 yearly compliance submittal, sample and test
	Fine Aggregate		ASTM Standards C 33 and C 330 yearly compliance submittal, sample and test
	Admixtures		Manufacturer certification
	Water		Supplier test result submittal, sample and test
	Reinforcing and Prestressing Steel	Verify grade, size and type by mill stamps on bar	Match bundle tags to mill certification submittal, sample and test
	Misc. Chairs, Anchors, etc.		Manufacturer certification
Bolts in Concrete	Bolts	Verify grade and size by bills of lading	Match bills of lading to mill certification submittal, sample and test
	Epoxy	Observe material packaging and labels, verify compliance with project specs or approvals, observe batching per manufacturer instructions, occasionally sample and test	Manufacturer certification, sample and test
Masonry	Block or Brick	Occasionally sample and test	Manufacturer certification, sample and test
	Grout Mix	Structural engineer approves mix design based upon submittals, verifies approved mix design supplied based upon batch ticket, occasional sampling and testing	Batch plant inspection
	Cement		Manufacturer certification, sample and test
	Grout, Coarse Aggregate		Yearly compliance testing, sample and test
	Grout, Fine Aggregate		Yearly compliance testing, sample and test
	Admixtures		Manufacturer certification
	Water		Supplier test result submittal, sample and test

ELEMENT	MATERIAL	PRESENT PRACTICE	ADDITIONAL REQUIREMENTS
	Mortar Mix	Structural engineer approves mix design based upon submittals, verifies approved mix design supplied based upon batch ticket, occasional sampling and testing	Observe field batching, verify mix design compliance, sample and test
	Mortar, Fine Aggregate		Yearly compliance testing, sample and test
	Composite	Test prisms	
	Misc. Centering Devices, Screens, etc.		Manufacturer certifications
	Reinforcing Steel	Verify grade, size and type by mill stamps on bar	Match bundle tags to mill certification submittal, sample and test
Structural Steel	Structural Steel		Match delivery information with mill certifications
	Bolts		Match delivery information with certificate of compliance
	Non-shrink Grout	Observe material packaging and labels, verify compliance with project specs or approvals, observe batching per manufacturer instructions, occasionally sample and test	Manufacturer certification, sample and test
	Anchor Bolts		Match delivery information with certificate of compliance
	Weld-filler Materials	Observe material packaging and labels, verify on-site storage	Match delivery information with certificate of compliance
<u>Firestop Systems</u>	<u>Element</u>	<u>All fire resistance rated, smoke resistant, or combination walls and floors that form compartmentation, the penetrating items and Firestop Systems.</u>	
	<u>Material</u>	<u>Fill, void or cavity materials (firestop sealants, caulks, sprays, mortars, putties, wrap strips, composite sheets, bags and blocks), firestop devices, and packing materials as listed in specific firestop system designs.</u>	<u>Manufacturer certification</u>
	<u>Present Practice</u>	<u>Independent testing laboratories provide directories of firestop systems which are cited in building design and specifications. The directories specify combinations of firestop materials, the penetrating items, and building elements penetrated or void. The Firestop Inspector observes onsite installations for compliance with approved design and specifications.</u>	<u>ASTM Standard E2174-05; ASTM Standard E2393-04</u>
	<u>Additional Requirement</u>	<u>Contractor qualification, when appropriate.</u>	<u>FM 4991 – Approval of Firestop Contractors; UL Qualified Firestop Contractor</u>

- ¹ Published by International Code Council, Falls Church, Virginia: Washington, D.C.: www.iccsafe.org
- ² Published by International Organization for Standardization, Geneva, Switzerland: www.iso.org
- ³ Published by International Accreditation Service, Whittier, California: www.iasonline.org